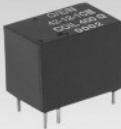
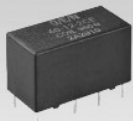
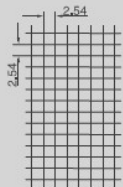
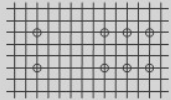
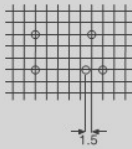
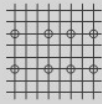
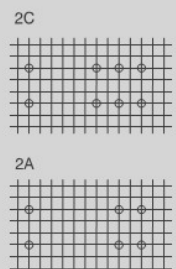
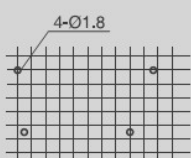
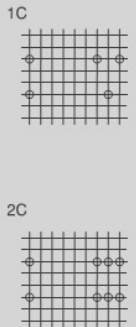
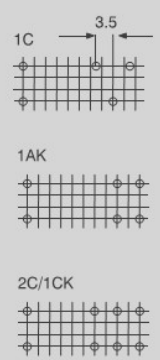
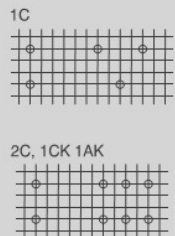
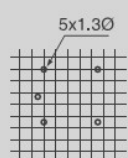
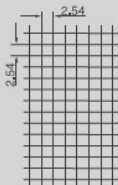
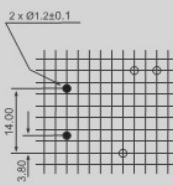
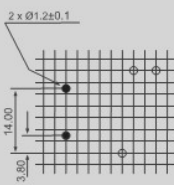
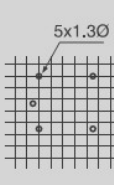


CLASSIFICATION		MINIATURE POWER RELAYS			
MODEL	UNIT	26	42	43	46
					
STYLE		PC	PC	PC	PC
DIMENSION	mm	28.8 x 12.7 x 15.5	16 x 11 x 12	17.6 x 10.1 x 12.3	20.2 x 10.5 x 12
WEIGHT	gms	12	3.5	6	5
CONTACT					
CONFIGURATION		1CK 1 A K	1C	1A 1C	2C
CURRENT RATING	A	16 at 24 VDC / 230 VAC	1 at 24 VDC	5 3 at 24 VDC/230 VAC	2 at 30 VDC
COIL					
NOMINAL VOLTAGE	AC	V	-	-	-
	DC	V	5 - 48	12 - 24	5 - 48
Operating Power (DC Relays)		mw	480	200 450	150
GENERAL DATA					
LIFE (OPERATIONS)	Mechanical		1×10^6	1×10^7	1×10^7
	Electrical		1×10^5	1×10^5	1×10^5
DIELECTRIC STRENGTH	Between open contacts	Vrms	1000	500	1000
	Coil to contact	Vrms	5000	1000	1000
INSULATION RESISTANCE AT 500 VDC AT 25°C RH 50		Mohms	1000	100	100
P.C. LAYOUT (Bottom view) 					
	Page	27	28	29	30
FEATURES/ OPTIONS		Dust protected, Sealed	High sensitivity, Small size	Small size, Sealed	Small size, Light weight

MINIATURE POWER RELAYS

48	55H	57	58	59	61
					
PC	PC/TMP	PC	PC	PC	PC
29 x 12.7 x 25.6	30.5 x 16 x 23.5	26 x 13 x 25	29 x 13 x 25.6	29 x 13.2 x 25	22 x 16 x 16
20	35	18	18	20	12
2A 2C	1A	1C 2C	1CK 1C 2C	1CK 1C	1C
10 8 at 24 VDC / 230 VAC	25 at 24 VDC/230 VAC	6 2 at 24 VDC / 230 VAC	16 10 5 at 24 VDC/230 VAC	16 10 at 24 VDC/230 VAC	10 at 24 VDC / 230 VAC
-	-	-	12 - 230	-	-
6 - 110	12 - 24	6 - 115	5 - 60	6 - 48	5 - 48
520	900	960	500	520	360
1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁷
1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
1000	1000	500	750	1000	750
4000	2000	750	5000	4000	1500
500	1000	1000	500	500	100
					
31	32	33	34	35	36
Dust protected, Sealed	Spade terminals for power output	Dust protected	Dust protected, High capacity	Dust protected, UL approved	UL approved, Sensitive

CLASSIFICATION		MINIATURE POWER RELAYS				
MODEL	UNIT	62	63	65	67	
						
STYLE		PC	PC/TMP	PC	Solder/Plug in/PC	
DIMENSION	mm	32.6 x 27.5 x 20.5	32.4 x 27.5 x 28	19 X 15.5 X 15.5	30.2 x 19 x A A= 23.8 to 40.5	
WEIGHT	gms	26	35	9.5	30 35 40 45	
CONTACT						
CONFIGURATION		1A 1C	1A 1C	1C	2 - 8C	
CURRENT RATING	A	30 NO : 20 NC : 10 at 24 VDC/230 VAC	30 NO : 30 NC : 20 at 24 VDC/230 VAC	7 at 24 VDC / 230 VAC	3 5 7 at 24 VDC/230 VAC	
COIL						
NOMINAL VOLTAGE	AC	V	-	230	-	2 - 230
	DC	V	5 - 48	5 - 24	12 - 24	3 - 230
Operating Power (DC Relays)		mw	900	900	360	Power : 800 Sensitive : 200
GENERAL DATA						
LIFE (OPERATIONS)	Mechanical		1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
	Electrical		1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
DIELECTRIC STRENGTH	Between open contacts	Vrms	1500	1500	750	500
	Coil to contact	Vrms	4000	2500	1500	1000
INSULATION RESISTANCE AT 500 VDC AT 25 ⁰ C RH 50		Mohms	100	100	100	500
PC. LAYOUT (Bottom view)						
	Page	37	38	39	40-41	
FEATURES/ OPTIONS		Dust protected, UL approved	UL approved, High reliability	High sensitivity, Sealed	Dust protected, Sealed	

MINIATURE POWER RELAYS

GENERAL PURPOSE RELAYS

68



PC

29 x 12.7 x 25.6

20

81



PC

22.5 x 17.5 x 15

11

85



Solder/Plug in/Flange

29 x 13 x 36

21

85H



Solder/Plug in

29 x 12.5 x 31.5

21

31 - 1R/2R



Plug in

35 x 32 x 53

115

31 - 3R/4R



Plug in

36 x 33 x 45

100

2A 2C

8 6

at 24 VDC/230 VAC

1C

10

at 24 VDC / 230 VAC

1CS 1CK 2CS 2CK

10 16 5 8

at 30 VDC/230 VAC

2A

5

at 220 VDC

2C 3C

10

at 24 VDC/230 VAC

2C 3C

10

at 24 VDC/230 VAC

-

6 - 48

800

-

6 - 48

450

12 - 230

12 - 125

480

12 - 125

480

6 - 230

6 - 220

1100

6 - 230

6 - 230

1100

1×10^6

1×10^5

1600

4000

500

1×10^7

1×10^5

1000

2500

500

2×10^6 (DC Relay) 10^5 (AC Relay)

1×10^5

1000

5000

3000

2×10^6

1×10^5

1000

5000

3000

1×10^6

1×10^5

1500

2000

500

1×10^6

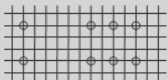
1×10^5

1500

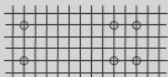
2000

500

2C

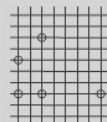


2A



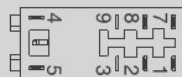
42

Dust protected,
Sealed



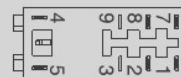
43

Small size,
Light weight



44-45

Comply to
IEC 60255-5,
UL approved



46

Comply to
IEC 60255-5,
Dust protected



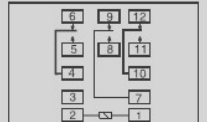
2 Form C



3 Form C

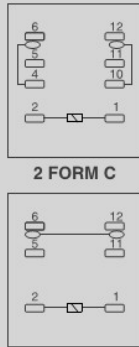
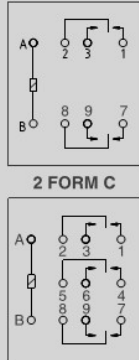
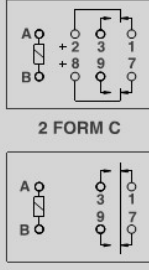
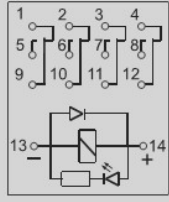
51

Din rail mountable,
Free wheeling
diode & LED
indication optional



52

Din rail mountable,
Free wheeling
diode & LED
indication optional

CLASSIFICATION		GENERAL PURPOSE RELAYS				
MODEL	UNIT	31H	33	33H	37	
						
STYLE		Solder/Plug in	Plug in	Solder/Plug in	Solder/Plug in/PC	
DIMENSION	mm	36 x 33 x 45	41 x 38 x 56	41 x 38 x 56	28 x 21.5 x 35.5	
WEIGHT	gms	100	100	125	35	
CONTACT						
CONFIGURATION		2C 1Z	2C 3C	2C 1Z	4C	
CURRENT RATING	A	5 10 at 220 VDC	30 at 24 VDC/230 VAC	10 20 at 220 VDC	5 at 24 VDC/230 VAC	
COIL						
NOMINAL VOLTAGE	AC	V	24 - 230	155 - 230	155 - 230	110 - 230
	DC	V	12 - 220	09 - 220	12 - 220	12 - 110
Operating Power (DC Relays)		mw	1100	2000	2000	900
GENERAL DATA						
LIFE (OPERATIONS)	Mechanical		1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁷
	Electrical		1 x 10 ⁵	5 x 10 ⁴	1 x 10 ⁵	1 x 10 ⁵
DIELECTRIC STRENGTH	Between open contacts	Vrms	1500	2000	2000	1000
	Coil to contact	Vrms	2000			2000
INSULATION RESISTANCE AT 500 VDC AT 25°C RH 50		Mohms	500	100	100	100
WIRING LAYOUT		 2 FORM C 1 FORM Z	 2 FORM C 3 FORM C	 2 FORM C 1 FORM Z		
	Page	53	54	55	56	
FEATURES/ OPTIONS		Din rail mountable, Dust protected	Din rail mountable, Dust protected	Din rail mountable, Dust protected	Din rail mountable, Dust protected	

GENERAL PURPOSE RELAYS

37-T



Solder/Plug in

28 x 21.5 x 36

35

38



Solder/Plug in/PC

28 x 21.5 x 35

35

38-T



Solder/Plug in

41.4 x 28 x 36.1

65

51



Plug in

36.0 x 35.5 x 57

80

72



Plug in

32 x 35.2 x 51.5

65

2C 4C

10 5

at 24 VDC/230 VAC

2C

10

at 24 VDC/230 VAC

4C

10

at 24 VAC/230 VDC

2C 3C

10

at 24 VDC/230 VAC

1C

40

at 24 VDC/230 VAC

110 & 230

12 - 110

900

110 - 230

12 - 110

900

110 - 230

12 - 220

1500

6 - 230

6 - 220

1200

125 - 230

12 - 24

1920

1×10^7

1×10^5

1000

2000

100

1×10^7

1×10^5

750

1500

100

1×10^7

1×10^5

1000

2000

100

2×10^7

1×10^5

1500

2500

1000

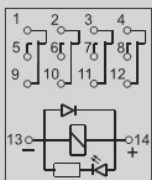
1×10^6

5×10^4

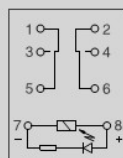
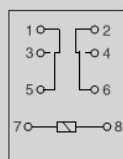
1600

2000

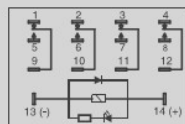
100



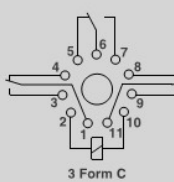
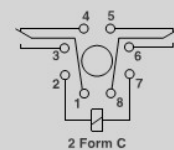
57



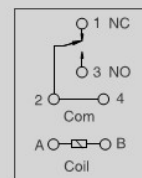
58



59



60



1C

61

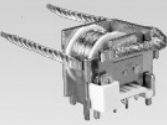
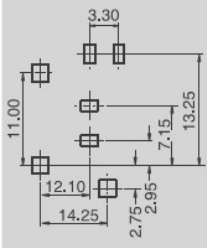
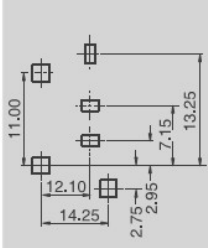
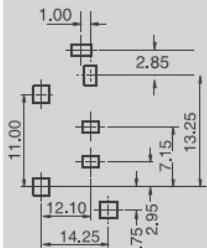
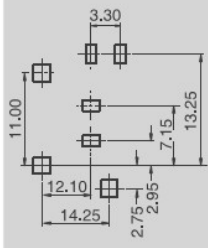
Din rail mountable,
LED & free wheeling diode across coil

LED indication,
Din rail mountable

LED & Free wheeling diode,
Mechanical test button

Comply to IEC 60255-5,
Mechanical flag indication

Direct panel mounting facility

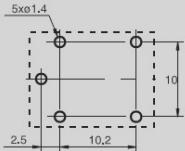
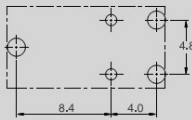
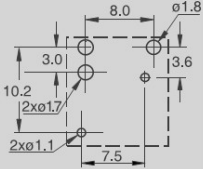
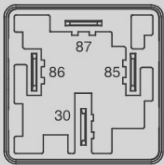
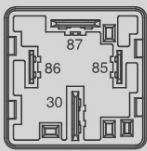
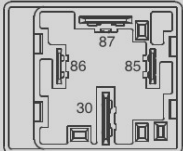
CLASSIFICATION		AUTOMOTIVE RELAYS			
MODEL	UNIT	35	35H	35HT	3572
					
	STYLE	PC	PC	PC	PC
	DIMENSION	mm	19.1 x 22.5 x 21	19.1 x 22.5 x 21	24 x 18.6 x 21
	WEIGHT	gms	25	25	25
CONTACT					
CONFIGURATION		1A	1A	1A	1A 1C
CURRENT RATING (Unless Other wise Specified all ratings are for resistive loads)	A	NO : 30 NC : 20 at 12 VDC	NO : 40 at 12 VDC	NO : 70 at 12 VDC	NO : 45 NC : 30 at 12 VDC
COIL					
NOMINAL VOLTAGE	VDC	V	6 - 48	6 - 48	12
Operating Power (DC Relays)	mw	1636	1636	2250	1600
GENERAL DATA					
LIFE (OPERATIONS)	Mechanical	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷	1 x 10 ⁷
	Electrical	1 x 10 ⁵	2 x 10 ⁵	5 x 10 ⁴	2 x 10 ⁵
DIELECTRIC STRENGTH	Between open contacts	Vrms	500	500	500
	Coil to contact	Vrms	500	500	500
INSULATION RESISTANCE AT 500 VDC AT 25°C RH 50		Mohms	100	100	100
BOTTOM VIEW / DRILLING PATTERN					
	Page	69 - 70	71 - 72	73 - 74	75 - 76
FEATURES/ OPTIONS		Suitable for various loads	Suitable for various loads, Heavy duty	Extra braided wire, Heavy duty	Suitable for various loads, Heavy duty

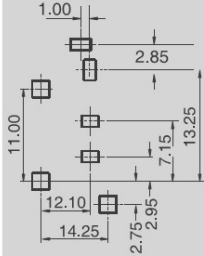
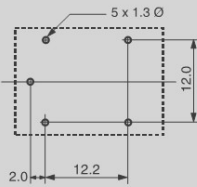
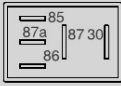
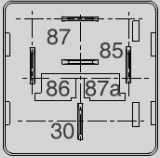
AUTOMOTIVE RELAYS

41	45	50	53	53PT	53H
					
PC	PC	PC	Solder / Plug in	Solder / Plug in	Solder / Plug in
15.5 x 12.5 x 14	7.2 x 14.0 x 13.5	13 x 12 x 10.5	28 x 28 x 25	28 x 28 x 25	30.5 x 35.5 x 27
5	4.25	5	45	45	65

1A 1C	1A 1C	1A 1C	S (1A) D (1A) T (1A)	S (1A) T (1A)	1A
NO : 20 NO : 20 NC : 10 at 13.5 VDC	NO : 20 NO : 20 NC : 10 at 13.5 VDC	NO : 30 NO : 30 NC : 25 at 12 VDC	NO:40 NO:50 NO:70 at 13.5 VDC	NO : 70 NO : 100 at 12 VDC	NO : 40 at 60 VDC NO : 25 at 72 VDC NO : 10 at 110 VDC NO : 5 at 145 VDC
5 - 24	12	12	6 - 100	12 - 110	6 - 110
640	640	567	1920	1920	1920

1 x 10 ⁶	1 x 10 ⁶	5 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶
1 x 10 ⁵	1 x 10 ⁵	3 x 10 ⁵ (20A-13.5VDC)	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
500	500	500	500	500	500
750	500	500	750	750	750
100	100	100	100	100	100

					
77 - 78	79 - 80	81 - 82	83 - 84	85 - 86	87 - 88
Compact size, Enclosure IP67	Small relay, 25A motor lock load	IP67 sealed, minimal weight	Dual contact, 6.3mm flat terminals	Dual contacts, 9.5mm flat contact terminals	9.5mm flat contact terminals, High voltage switching

CLASSIFICATION			AUTOMOTIVE RELAYS			
MODEL	UNIT		54	61A	73	74
						
STYLE			PC	PC	Solder / Plug in / PC	Solder / Plug in
DIMENSION	mm		25 x 20 x 21.5	22 x 16 x 16	22.5 x 15 x 25	28 x 28 x 25
WEIGHT	gms		25	12	20	45
CONTACT						
CONFIGURATION			1A	1A 1C	1A 1C	1A 1C
CURRENT RATING (Unless Other wise Specified all ratings are for resistive loads)	A		NO : 70 at 13.5 VDC	NO : 20 NO : 20 NC : 10 at 12 VDC	NO: 20 NO: 20 NC: 10 at 12 VDC NO: 35 NC: 20	NO : 30 NO : 30 NC 20 at 12 VDC
COIL						
NOMINAL VOLTAGE	VDC	V	12 - 24	6 - 24	6 - 24	12 - 48
Operating Power (DC Relays)		mw	2250	800	1309	1694
GENERAL DATA						
LIFE (OPERATIONS)	Mechanical		1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶
	Electrical		1 x 10 ⁶ (60A-13.5VDC)	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵
DIELECTRIC STRENGTH	Between open contacts	Vrms	500	500	500	500
	Coil to contact	Vrms	500	500	500	750
INSULATION RESISTANCE AT 500 VDC AT 25°C RH 50		Mohms	100	100	100	100
BOTTOM VIEW / DRILLING PATTERN						
	Page		89 - 90	91 - 92	93 - 94	95 - 96
FEATURES/ OPTIONS			Unique twin contact	Sealed, small size	4.8 & 6.3 flat terminals	6.3mm flat terminals, optional sealing

AUTOMOTIVE RELAYS

74H



Solder / Plug in

35 x 30,5 x 26,7

65

76



PC

17,5 x 15 x 20

12

78



Plug in

22 x 17 x 27

50

79



Plug in

32,5 x 27 x 32,5

73

83



Solder / Plug in

22,8 x 15 x 15,8

15

84



Solder / Plug in

43,8 x 43,8 x 30

95

1A 1C

NO & NC : 25
at 36 VDC
NO & NC : 20
at 48 VDC
NO & NC : 15
at 72 VDC
NO & NC : 7
at 110 VDC

12 - 24

1694

1A 1C 1U

NO:20 NO:20 NO:20
NC:10
at 13,5 VDC

6 - 24

1108

1A

NO : 22
at 12 VDC

12 - 24

1440

1A 1C

NO : 50 NO : 50
NC : 30
at 13,5 VDC

12 - 24

1920

1A

NO : 20
at 13,5 VDC

12 - 24

1108

1A

NO : 100
at 13,5 VDC

12 - 48

2400

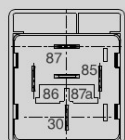
1×10^6

1×10^5

500

750

100



97 - 98

6.3mm flat terminals,
optional sealing

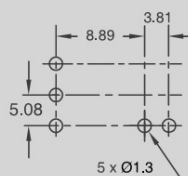
1×10^6

1×10^5

500

750

100



99 - 100

Low profile, minimum
space requirement

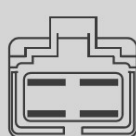
1×10^6

6×10^5

500

750

100



101 - 102

Enclosed,
Small size

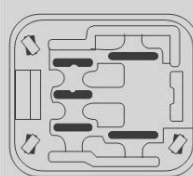
1×10^7

1×10^5

500

750

100



103 - 104

Dust protected,
medium duty

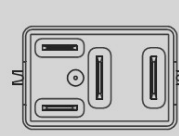
2.5×10^6

2×10^5

500

750

100



105 - 106

Enclosure IP 67,
Low profile

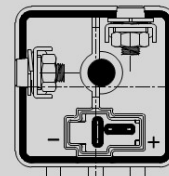
1×10^6

1×10^5

500

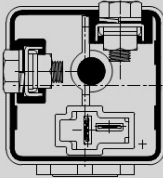
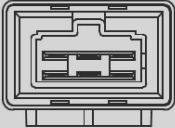
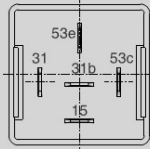
750

10



107 - 108

Enclosure IP 67,
Dual contacts

CLASSIFICATION			AUTOMOTIVE RELAYS			
MODEL	UNIT		84H	92	192	
						
STYLE			Solder / Plug in	Plug in	PC	
DIMENSION	mm		43,8 x 43,8 x 35	48 x 30,5 x 47,5	31,5 x 31,5 x 51,5	
WEIGHT	gms		95	80	45	
CONTACT						
CONFIGURATION			1A	2 x 1A	1A 1C	
CURRENT RATING (Unless Other wise Specified all ratings are for resistive loads)			NO : 200 at 13.5 VDC	NO : 30 at 13.5 VDC	NO : 20 at 13.5 VDC	
COIL						
NOMINAL VOLTAGE	VDC	V	12 - 24	12 - 24	-	
Operating Power (DC Relays)		mw	3600	1636	-	
GENERAL DATA						
LIFE (OPERATIONS)	Mechanical		1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁶	
	Electrical		1 x 10 ⁵	1 x 10 ⁶	1 x 10 ⁵	
DIELECTRIC STRENGTH	Between open contacts	Vrms	500	500	500	
	Coil to contact	Vrms	750	750	500	
INSULATION RESISTANCE AT 500 VDC AT 25°C RH 50		Mohms	10	100	10	
BOTTOM VIEW / DRILLING PATTERN						
	Page		109 - 110	111 - 112	113 - 114	
FEATURES/ OPTIONS			Dual contacts, Screw type termination for contacts	Heavy duty, Plug in type	Optional sealing	